US 1 Quick Facts

Corridor Length: 10.9 Miles from Elkridge to North Laurel

Posted Speed Limits: 35 MPH to 50 MPH

Sidewalks: 6.4 Miles of Sidewalk
► 0.9 miles of roadway with sidewalk on both sides
► 4.6 miles of roadway with sidewalk on one side
► 6.0 miles of roadway with no sidewalks

Bike Lanes: 0.4 miles

Crosswalks: 8 Marked Crosswalks across US 1

Bus Stops: 31 RTA, 14 MTA, 2 shared RTA/MTA
► 11 RTA stops and 10 MTA stops have no sidewalk access
► 24 RTA stops, 8 MTA stops, and both shared stops are more than 500 feet from a crosswalk across US 1

2016 Crash History: 257 total crashes
► 161 Property Damage Crashes
► 92 Injury Crashes (3 pedestrian crashes, 1 bike crash)
► 4 Fatal Crashes (4 pedestrian crashes with 5 fatalities)
1. Background and History
2. Evaluation Process
3. Recommendations and Concepts
4. Current Status and Next Steps
Background and History
US 1 in Howard County
Trends in the US 1 Corridor: Vehicle Traffic

2015 Average Annual Daily Traffic (AADT) in the US 1 Corridor

2015 Average Annual Daily Traffic (AADT)

- 24,862 - 25,442
- 25,443 - 29,852
- 29,853 - 33,434
- 33,435 - 35,912
- 35,913 - 41,602

2010 to 2015 Change in AADT in the US 1 Corridor

AADT Change
- Decline more than 1500
- -1501 to -501
- -500 to +500
- +501 to +1500
- +1501 to +2500
- Increase more than 2500
Evaluation Process
Evaluation Process

Office of Transportation

Sabra & Associates (SAI)

Evaluation “Core Team”

Field Evaluation Team

SAI; “Core Team”

Office of Transportation; MDOT SHA

Gather Public Input

Assess Crash History Data

Select Segments for Field Observations

Conduct Field Evaluations of Existing Conditions

Analyze Field Observations and Develop Recommendations

Show Results to Public

Plan for Implementation
Core Team Members

The core team consisted of representatives of the following departments, offices, and agencies:

- Maryland Highway Safety Office
- MDOT SHA District 7 (Howard, Carroll, and Frederick Counties)
- MDOT SHA Office of Traffic and Safety
- Baltimore Metropolitan Council
- Howard County Department of Public Works
- Howard County Police Department
- Howard County Office of Transportation
Public Input

- 2 open houses
- 36 attendees
- 41 comment forms
- 89 specific locations
- 14 emails received
- 4 boards and commissions
CRASH HISTORY: PEDESTRIAN AND BICYCLE

- **Crashes resulting in fatality**: 2 (5 fatalities)
- **Crashes resulting in injury**: 6, 6, 8, 12, 6

Data Source: Howard County Police Department ILEADS database, 2012-2016.
Area 1: City of Laurel/Howard County Line to Whiskey Bottom Road
Area 2: Guilford Road to Patuxent Range Road
Area 3: Assateague Drive to Brookdale Drive
Area 4: Greenfield Road to Levering Avenue
Daytime and Twilight Field Observations

- High vehicle speed incompatible with pedestrian activity
- Inadequate visibility of pedestrians
- Lack of pedestrian crossings
- Lack of sidewalks or bike facilities creating a connected non-motorized network
Recommendations
RECOMMENDATIONS: AREA 1
RECOMMENDATIONS: AREA 3

**Intersection Improvements**
- Install new signal with pedestrian features
- Relocate bus stop to a marked pedestrian crossing
- Ensure sidewalk connection to an existing bus stop
- Update/ retrofit intersection pedestrian facilities
- Install pedestrian activated signal
- Install marked crosswalk
- Existing bus stop locations

**Bike/Ped Improvements**
- Prioritize sidewalk completion
- Install sidewalk
- Install on-road bike facilities
- Install additional road/way lighting
- Install shared use path
- Alternative signed low-stress bike route
- Relocate bus stop
- Existing sidewalk

**Corridor Improvements**
- Implement consistent speed limit
- Install pedestrian-bicyclist bridge
- Institute road diet
**RECOMMENDATIONS: AREA 4**

**Intersection Improvements**
1. Install New Signal with Pedestrian Features
2. Relocate Bus Stop to a Handicap Accessible Crossing
3. Ensure Sidewalk Connection to an Existing Bus Stop
4. Update/Realign Intersection Pedestrian Facilities
5. Install Pedestrian Activated Signal
6. Install Marked Crosswalk
7. Existing Bus Stop Locations

**Bike/Ped Improvements**
- Prioritize Sidewalk Completion
- Install Sidewalk
- Install On-Road Bike Facilities
- Install Additional Roadway Lighting
- Install Shared Use Path
- Alternative Signed Low-Stress Bicycle Route
- Replace Bus Stop
- Existing Sidewalk

**Corridor Improvements**
- Implement Consistent Speed Limit
- Install Pedestrian-Bicyclist Bridge
- Institute Road Diet
CONCEPT 1: NORTH LAUREL BUFFERED BIKE LANES
CONCEPT 2: BREWERS COURT PEDESTRIAN SIGNAL
CONCEPT 3: GUILFORD/US 1 PEDESTRIAN IMPROVEMENTS
CONCEPT 5: DOCTOR PATEL DRIVE PEDESTRIAN SIGNAL
## Cost Estimates

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<th>Concept</th>
<th>Pavement Markings - Bike Lane</th>
<th>Signage</th>
<th>Curb Ramps</th>
<th>New Traffic Signals</th>
<th>Retrofit Pedestrian Signals</th>
<th>Crosswalk Markings</th>
<th>Sidewalk</th>
<th>Leased Lighting Heads</th>
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<td>100 % Contingency for design fee, environmental mitigation, utilities, and right of way acquisition</td>
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Corridor-Wide Recommendations

Context-Sensitive Speed Limit
• Max speed limit of 45 MPH
• Lower speed limit in pedestrian-dense areas
• Change speed limit in increments of 5 MPH
Contact

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